metabolic comorbidities, including obesity, hypertension, type 2 diabetes, myocardial infarction, stroke, and urate nephrolithiasis **(Chap. 417)**; modifiable risk factors include obesity, Western diet, alcohol, sedentary lifestyle, and diuretics (Fig. 372-1).

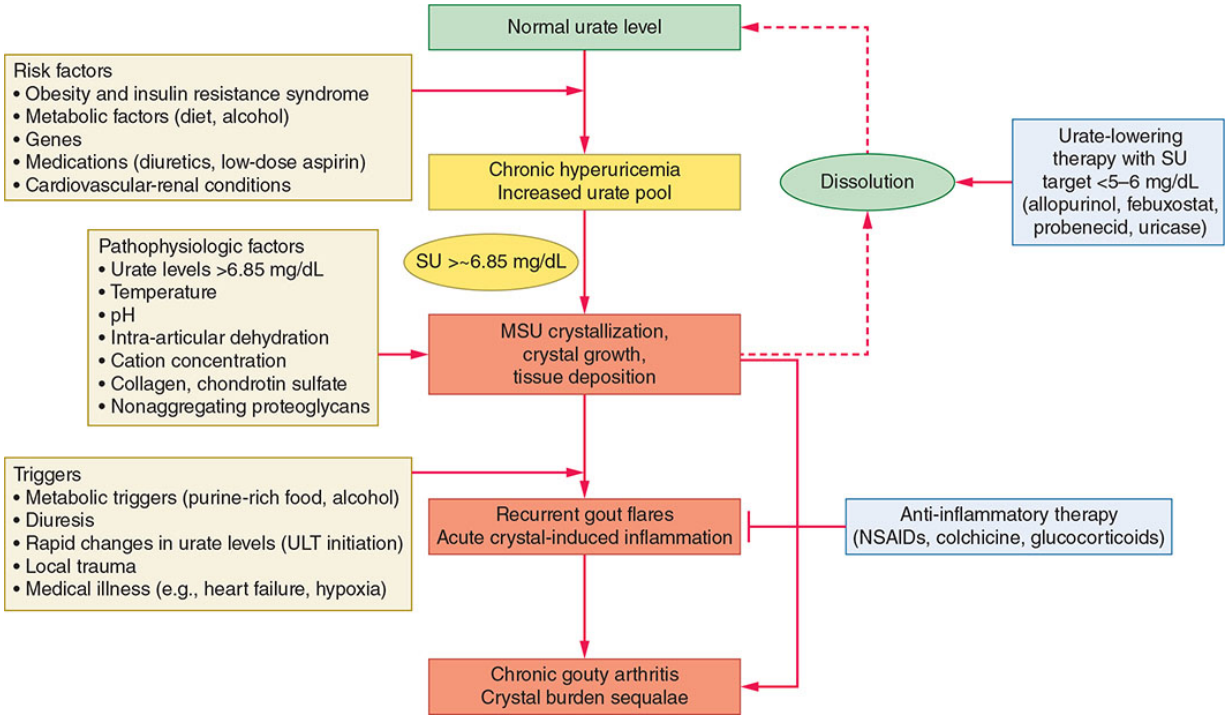


**FIGURE 372-1 Pathogenesis of gout and therapeutic targets.** Metabolic and some genetic factors contribute to the development of chronic hyperuricemia. Gout stems from an increased body pool of urate due to chronic hyperuricemia, leading to supersaturation and crystal formation and deposition of monosodium urate (MSU; tophi) within the joints and connective tissue. Synovial tophi are usually walled off, but certain triggers may loosen them from the organic matrix, leading to crystal shedding and interaction with synovial cell lining and residential inflammatory cells, initiating an acute gout flare. In some individuals, growing MSU crystal deposition leads to chronic gouty arthritis with subcutaneous tophi. Anti-inflammatory therapy targets the downstream process of crystal-induced inflammation, whereas ultimate control of gout requires correction of the underlying central cause, chronic hyperuricemia with increased urate pool. NSAIDs, nonsteroidal anti-inflammatory drugs; SU, sodium urate; ULT, urate-lowering therapy.

## ■ CLINICAL MANIFESTATIONS

Early clinical manifestation of gout is characterized by acute recurrent gout flares. Usually, only one joint is affected initially,